13 and anal plates, milk white from spiraclesto feet, extending higher on joints 4-6 and 11-12, mottled. End of joint 13 swollen above, light brown; joint 3 a little enlarged dorsally. In the natural position of rest, curled spirally around a leaf petiole, the two largest white patches adjoin each other.

Enters the earth without ultimate stage.

Single brooded, feeding only on immature leaves.

Staten Island, N. Y., June 1; Bellport, Long Island; Bedford Park, N. Y., May 25; Fort Lee and Plainfield, N. J., May 16 (the youngest one).

#### Table of genera of Xyelidae.

#### (By W. 11, Ashmead.)

1. Front wings with the intercostal vein uniting with the subcostal; hind wings with one complete submarginal and one discoidal cell. 3 Front wings with the intercostal vein separated, distinct from the subcostal; hind wings with two complete submarginal cells and one discoidal cell. . . . . 2 2. Antennae 9-jointed, the six terminal joints very short, together not longer than the scape and less than half the length of the third joint; clypeus with a median emargination; claws with an erect tooth before the . . . . Macrosyela Kirby. Antennae 10-jointed, the seven terminal

### RUDOLF LEUCKART.

So many and such valuable contributions to our knowledge of the morphology and physiology of insects have come from the laboratories of the late Professor R. Leuckart of the University of Leipzig, that a few words of appreciation of this master zoologist's labors and of regret for his loss can not be amiss in the pages of Psycule. Dr. Leuckart, who died in February in his seventy joints very short, together not longer than the scape or less than one fourth the length of the third joint; clypeus triangularly produced in the middle; claws bifid; all tibiae very spinous, hind tibiae with 4 long spurs beneath between middle and apex

Megaxyela Ashm.

(type X. major Cress.)

Antennae 12-jointed, the nine terminal joints much shortened, together much shorter than the third joint; both transverse radial nervares originating from the second cubital cell; clypeus and tiblae as in Megaxyela; claws with a large erect tooth before middle *Pleuroneura* Konow.

3. Antennae r2-jointed, the nine terminal joints slender, lengthened, together as long or longer than the third joint; claws long, slender, with a very minute, nearly obsolete tooth beneath a little beyond the middle 4

4. Front wings with both transverse radial nervures originating from the second cubital cell, rarely with the second transverse radial interstitial; clypeus with a median ridge which is slightly extended beyond the anterior margin, but scarcely triangularly produced . . . . Manoxyela Ashm.

(Type M. californica Ashm.)

sixth year, was a zoologist of extraordinary range of study, touching in his work the anatomy and life-history of the most widely separated groups of animals, working indeed through the whole animal realm from Amoeba to Man. His largest contributions are those to the knowledge of the parasitic worms, but his enlightening studies of the micropyle and fertilization of insect eggs (1855), the reproduction and development of the Pupipara (1858), the alternation of generations, and parthenogenesis among May 1898.]

insects (1858 and later) and his exhaustive studies of the anatomy and life-history of the honey-bee (together with other contributions) have made his name a familiar one to entomologists. In passing, it is to be regretted that entomologists as a rule have far too little acquaintance with "general zoologists" and their work, although it is a fact, and one which we must admit with humiliation, that most of our knowledge of insect morphology and physiology has come from these general zoologists, men who are not professed students of insects, i.e. entomologists.

As a teacher Leuckart has been for years the best known and most besought zoologist of the world. If the names of the living well-known zoologists of Europe (excluding England and France) are called, surprisingly

many of them are in the list of Leuckart's students. Claus, Weismann, Bütschli, Hatshek, Chun (who succeeds to Leuckart's chair) Korschelt, Kräpelin and others nearly as well known have worked in Leuckart's laboratories. In America, Whitman, Mark, Baur, Herrick, Stiles, Patten, Pratt, Wood, Parker, Child and others are one-time students of Leuckart; and of the investigations made by these and the scores of other students in Leuckart's laboratories, a majority has had for subject the morphology of insects.

Of Leuckart's relation to his students it is only necessary, and is no exaggeration, to say that he was beloved by all of his students, and that the memory of him is a lasting inspiration to each of them.

Vernon L. Kellogg. Leitzig, March, 1808.

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[ May 1898.

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